



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,871	09/29/2003	Steven R. Lowe	TUC920030101US1	6311
35825	7590	07/11/2006	EXAMINER	
LAW OFFICE OF DAN SHIFRIN, PC - IBM 14081 WEST 59TH AVENUE ARVADA, CO 80004			THOMAS, SHANE M	
			ART UNIT	PAPER NUMBER
			2186	

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/674,871	LOWE ET AL.
	Examiner Shane M. Thomas	Art Unit 2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 April 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-11, 14-20 and 23-28 is/are rejected.
 7) Claim(s) 12, 13, 21, 22, 29 and 30 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 29 September 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


STEPHEN C. ELMORE
PRIMARY EXAMINER

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

Remarks

Examiner Shane Thomas has assumed the prosecution of this application henceforth.

This Office action is responsive to the response filed 4/5/2006. Claims 1-30 remain pending.

In the response to this Office action, the Examiner respectfully requests that support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line numbers in the specification and/or drawing figure(s). This will assist the Examiner in prosecuting this application.

Excerpts from all prior art references cited in this Office action shall use the shorthand notation of [column # / lines A-B] to denote the location of a specific citation. For example, a citation present on column 2, lines 1-6, of a reference shall herein be denoted as “[2/1-6].”

Response to Arguments

Applicant's arguments, see response, filed 4/5/06, with respect to the rejections of claims 12,13,21,22,29, and under §112, second paragraph, claims 1,4,7-11,14,16-20, and 23-28 under §102(b), and claims 2,3,15, and 16 under §103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection is made in view of Lubbers et al. (U.S. Patent Application Publication No. 2003/0187847) and the "Microsoft Computer Dictionary."

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 1-30 are objected to because of the following informalities:

As per claims 1 and 14, the term --plurality of ranks-- (claim 1, line 6; claim 14, line 5) should be amended to --plurality of logical ranks-- as the term --the plurality of ranks-- has not been previously defined in the claims. Further

Further regarding claim 1, the Examiner recommends amending the term --the corresponding rank-- to --a corresponding logical rank-- as the former term has not been previously defined in the claim.

Further regarding claim 1, line 13, the term --the destage mode-- should be amended to --the initial destage mode-- (or the like) as the term --the destage mode-- has not been previously defined in the claim.

As per claim 14, the Examiner recommends amending the phrase --that data update-- to --that each data update-- to clarify the claim language.

As per claims 14 and 23, the Examiner recommends amending the phrase --the corresponding rank-- to --a corresponding logical rank-- since the former term has not been previously defined in the claims.

Claims 2-13, 15-22, and 24-30 are objected to as being dependent on objected to base claims. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 23-30 are not limited to tangible embodiments. In view of applicants' disclosure, specification page 6, paragraph 17, the medium (i.e. the --computer program product--) is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g. hard disk drives, floppy disks, optical storage, non-volatile devices, etc.) and intangible embodiments (e.g., "wireless transmission media, signals propagating through space, radio waves, infrared signals, etc"). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3,16, and 24, are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “evaluating the available capacity of the NVS,” (¶15 of Applicant’s originally-filed specification) does not reasonably provide enablement for “evaluating the capacity of the NVS” as claimed in the aforementioned claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The capacity itself is not taught as being evaluated during the evaluation of workload conditions, but rather the available capacity (¶15). The scope of the limitation of “evaluating the capacity of the NVS” is not consistent with that of ¶15 of Applicant’s originally-filed specification in that the available capacity is checked (to determine if a backlog exists, for example). The capacity, itself, of the NVS would not change in accordance with the teachings of the Applicant’s originally-filed specification as the NVS is not taught to increase or decrease the amount of storage space it comprises. However, the available capacity does change as write data is written to the NVS before being destaged to the storage devices (¶15 of specification). Nonetheless, for the purposes of examination, the Examiner has considered the limitation of claim 3 to evaluate the available capacity of the NVS when the evaluation of workload conditions occurs.